

where k - an amount of the unhooking the capacitor on cleaning for overhaul period;

T - an overhaul period of the block, hour;

$\Delta\tau$ - length of the cleaning the capacitor, hour;

τ_{opt} - an optimum interval between two cleanings, hour.

In given methods is taken into account time for cleaning the capacitor $\Delta\tau$ that contributes it is enough essential adjustment and raises the quality of the planning period cleaning.

Using standard programme methods of searching for of the optimum of the system is defined minimum to functions F in point τ_{opt} whereupon possible define optimum number of the cleaning the capacitor for period T .

AUTOMATION SMALL HYDRAULIC POWER PLANT (HPP) WITHOUT SERVICING PERSONNEL

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On modern small HPP (mHPP), since and on HPP with hydrounit of the greater powers, are installed complex systems of the autocontrol and technological automation, which check and adjust over 20 parameters, and are an expensive equipment. Together with that, on mHPP no need for checking such amount parameter through simplified modes of their work.

All this leads to ungrounded increase the capital expenses at construction HPP and prime cost produced to electric powers.

Besides, on present time for HPP small power work, basically, analog systems of the autocontrol and systems of the technological automation on the base electromagnetic and electromechanic relay, reliability of the work falls due to that to stations.

Control HPP small power is realized servicing personnel on shield and board of control, which are installed right in machine common-room station that also brings about increasing of the working expenses to stations.

For HPP small power by actual problem is a most further optimization of the schemes of the automation and structures energy-block, particularly in condition of the

remote control by work to stations. This enables to reduce the cost mHPP (due to simplification managerial system), reduce the number servicing personnel and allows to spare on home and production premiseses. Thereby, use the optimum systems of the autocontrol HPP small power will give the Ukraine significant economic advantage and will provide broad spreading HPP small power for the reason more efficient use the renewed sources to energy.

The main technical idea are transition HPP on work without servicing operative personnel, simplification of the systems of the autocontrol and technological automation without loss of their accuracy and reliability and control state of working stations on channel non-wire relationship.

The main hypothesis are a positions about possibility of the work HPP small power with simplified regulator without reduction of reliability and economy, including in mode of their work on water-wire.

Use on mHPP simplified systems an autocontrol reduces the cost to stations, not worsenning reliability of its work, but introducing the new digital systems of the autocontrol on existing mHPP and full automation mHPP will provide the possibility of the use to stations without servicing personnel that promotes the essential reduction to prime cost made to electric powers.

INFORMATION-METROLOGICAL BASES OF THE CALCULATION WORKER TRAVELL ABOUT CENTRIFUGAL PUMP

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The pump presents itself hydraulic machine, transforming mechanical energy of the drive engine in energy of the liquids, providing its motion.

Coming from functionality of the pump, defining technical parameter are a presenting and pressure.

Presenting - a volume to liquids, given by pump in unit of time, expressed in m^3/h (the crew's quarters at hour) or l/s , (the litre at second).